

ABSTRACT OF THE DISCLOSURE

An image encoding apparatus includes a converter 1 for receiving an image signal, and for converting the image signal of individual blocks to DC components and AC components by orthogonal transformation of the individual blocks of an image frame; a predicted reference value generator 2 for receiving the image signal, and for generating a predicted reference value of each image frame from DC components resulting from the orthogonal transformation of left-edge blocks of the image frame; and a differential unit 3 for obtaining difference values between the DC components output from the converter 1 and the predicted reference value generated by the predicted reference value generator 2. The image encoding apparatus outputs a bit stream by quantizing and variable-length encoding the AC components and difference values obtained by the differential unit 3, and by quantizing and variable-length encoding the predicted reference value to be added to a header.